



# PEAS VISUAL REFERENCE IMAGES

## PEAS/S. PEAS -1.0 DAMAGE (CHALKY)



Portion for Analysis: Approximately 250 grams

Peas, Split peas, and pieces of peas with a spot (singularly or in combination) that meets the minimum coverage and color intensity (i.e., degree of whiteness) shown on the cotyledon are considered damage.

### Illustrated:

- A. Chalky Spot (suspect) yellow
- B. Chalky Spot (confirmed) yellow
- C. Chalky Spot (suspect) green
- D. Chalky Spot (confirmed) green

**NOTE:** To check the size and color of the chalky spot, remove the seed coat carefully so as not to chip, scrape, or otherwise disrupt the surface of the cotyledon.

## PEAS-1.1 DAMAGE (A. DIRT AND B. GRIME)



**A**



**B**

Portion for Analysis: Approximately 250 grams

A. Peas and pieces of peas with dirt adhering to the seed coat or the eye of the pea equal to or greater than the concentration and coverage shown are damage.

B. Peas and pieces of peas with grime adhering to the seed coat equal to or greater than shown are damage.

The same tolerance applies when dirt or grime adheres to the cotyledon of broken peas (more than 1/2 of a whole pea).

**NOTE:** Not applicable to wrinkle dry peas or smooth seeded peas grown for seed purposes.

## PEAS/S. PEAS-1.2 HEAT DAMAGE



**Portion for Analysis:** Approximately 250 grams

Peas, Split peas, and pieces of peas whose cotyledon had been materially and uniformly discolored to the minimum extent shown are heat damage. It is permissible to prorate the coverage requirement provided the color intensity is such that it sufficiently compensates for any apparent loss in coverage (e.g., 1/2 coverage requires twice the color intensity).

**NOTE:** For whole peas, chip/scrape the seed coat to confirm that the discoloration extends to the cotyledon. For split or broken pieces of peas, the round or flat side may be considered (it is not necessary for both to meet).

## PEAS/S. PEAS-1.3 DAMAGED BY HEAT



Portion for Analysis: Approximately 250 grams

Peas, Split peas, and pieces of peas whose cotyledon is discolored to the minimum color intensity and coverage shown are damage. It is permissible to prorate the coverage requirement provided the color intensity is such that it sufficiently compensates for any apparent loss in coverage (e.g.. 1/2 coverage requires twice the color intensity).

Illustrated:

A. Yellow (peas and split peas)

B. Green (peas and split peas)

**NOTE:** Whole dry peas shall be split so that the flat side of the split peas can be compared to the print. When split, only one of the halves need to meet the minimum color and coverage requirement.

## PEAS-1.4 MOLD DAMAGE



Portion for Analysis: Approximately 250 grams

Peas that contain surface mold equal to or greater than shown are damage.

**NOTE:** Any amount or color of mold on the cotyledon (meat) of the pea is damaged.

## PEAS-1.5 SPROUT DAMAGE



Portion for Analysis: Approximately 250 grams

Peas or pieces of peas which have sprouted to the extent that the sprout has cracked/broken through the seed coat and is visible to the minimum degree shown are damage. Also, when it is apparent that the sprouting has occurred (i.e., sprouting is noticeable in representative work sample) but, through handling, the sprout has broken off and is no longer protruding through the seed coat, consider such peas to be damage.

## PEAS-1.6 WEEVIL DAMAGE



Portion for Analysis: Approximately 250 grams

Peas and pieces of peas which meet any one of the following criteria are weevil damage.

- A. **Weevil Pinhole:** Peas and pieces of peas that have been stung by an insect and the damage extends into the cotyledon.
- B. **Visible Window:** Peas and pieces of peas which are weevil-bored; but the weevil has not emerged from the pea. The seed coat (window) still covers the bore hole.
- C. **Open Eye:** Peas and pieces of peas which are weevil-bored and the weevil has emerged from the pea.

**NOTE:** Insect damage peas should also be checked for live or dead insects/larvae for the presence of insect refuse. (Refer to Pea and Lentil Handbook, Section 4.12 and 4.31).



## S. PEAS-1.61 WEEVIL DAMAGE (CAVITY)



Portion for Analysis: Approximately 250 grams

Split Peas which contain a cavity left by the weevil larvae are weevil damage.

**NOTE:** Insect damage split peas should also be checked for live or dead insects/larvae and for the presence of insect refuse. (Refer to Pea and Lentil Handbook, Section 5.12 and 5.30).

## PEAS-1.7 WEEVIL DAMAGE (STING)



Portion for Analysis: Approximately 250 grams

Peas and pieces of peas with a single insect sting that extends into the cotyledon are weevil damage.

## PEAS-1.8 FROST DAMAGE



Portion for Analysis: Approximately 250 grams

Peas and pieces of peas that are discolored green to the minimum coverage and color intensity shown. It is permissible to prorate the coverage requirement provided the color intensity is such that it sufficiently compensates for any apparent loss in coverage (e.g., 1/2 coverage requires twice the color intensity).

Illustration shows from left to right:

Pea 1: Suspected frost damaged pea. The pea must be split in many instances to confirm that the damage extends into the cotyledon and meets the minimum intensity and coverage.

Pea 2: Whole pea, after splitting, with the minimum degree of discoloration and area of coverage required. The discoloration is usually evident around the perimeter, however, exceptions have been noted. The amount, not where, is what is important.

**NOTE:** Only half of the split pea must meet the ILP.

## PEAS/S. PEAS-2.0 BLEACHED (GREEN PEAS)



**Portion for Analysis:** Approximately 250 grams

Peas, Split peas, and pieces of peas which have one-eighth or more of the surface distinctly bleached to a white or light creamy yellow color equal to or greater than shown are bleached.

**NOTE:** No tinge of green shall be “bleeding” through this area to be considered bleached.

Newly harvested bleached peas tend to be yellow or creamy yellow in color. In storage, the color gradually changes to creamy or white.

## PEAS/S. PEAS-2.1 BLEACHED (YELLOW PEAS)



Portion for Analysis: Approximately 250 grams

Peas, Split Peas and pieces of peas which have one-eighth or more of the surface bleached green to a color equal to or greater than shown are bleached.

**NOTE:** To function as “Bleached,” the area of green being considered should not have any tinge of yellow bleeding through.

## PEAS-3.0 CRACKED SEED COATS



Portion for Analysis: Approximately 250 grams

Peas with cracked seed coats shall be peas that meet any of the following:

- A. Pea having a readily discernible cracked seed coat.
- B. Pea having a part of the seed coat removed equal to or greater than shown.
- C. Broken pea which is more than one-half of a whole pea.

**NOTE:** For thresher-run peas, only include the percentage of CSC in excess of 3.0% in “total defects and foreign material.”

Growth stress cracks appearing around the hilum function as CSC.

## S. PEAS-4.0 STAINED (GREEN)



Portion for Analysis: Approximately 250 grams

Green split peas with stain adhering to the cotyledon equal to or greater than shown are damage.

## S. PEAS-4.1 STAINED (YELLOW)



Portion for Analysis: Approximately 250 grams

Yellow split peas with stain adhering to the cotyledon equal to or greater than shown are damage.



## PEAS-5.0 SHRIVELED (SMOOTH)



Portion for Analysis: Approximately 250 grams

Peas that are distinctly shriveled, discolored, misshapen, and have sharp deep dimpled edges over the entire pea which are equal to or greater than shown shall be considered shriveled.

## PEAS-5.2 SHRIVELED (WRINKLED)



Portion for Analysis: Approximately 250 grams

Wrinkled Dry Peas that are slightly shriveled and distinctly discolored (caramelized) or slightly discolored with severe dimpling in the seed coat shall be considered shriveled.

Illustration shown from left to right:

Pea 1: Pea with heavily dimpled exterior with some “caramel” color showing through. Notice the knife-like edges around the perimeter of the individual dimples or craters. This so-called “webbing effect” must cover at least 50 percent of the surface area.

Pea 2: Minimum degree of discoloration and shriveling required to be considered shriveled. Peas that are shriveled to the extent they have withdrawn and separated from the seed coat (“shelley” peas) fall into this category.

## PEAS-5.3 BACTERIUM STAIN



Portion for Analysis: Approximately 250 grams

Peas and pieces of peas that are stained to the minimum intensity shown at the center of the pea and in which the discoloration covers 50 percent or more of the pea's surface are considered damaged. Bacterial infections can affect seed development and color, with severely infected seeds appearing much smaller than normal and having purple to pink discolored seed coats.

## PEAS-5.4 WEATHER DAMAGE



Portion for Analysis: Approximately 250 grams

Peas and pieces of peas in which the surface area is discolored to the minimum intensity and coverage shown are considered damage.

**NOTE:** Green peas usually show a black discoloration.